

**A Redefinition of the *Ageniella partita* Group with
Descriptions of Two New Species
(Hymenoptera: Pompilidae)**

MARIUS S. WASBAUER

Analysis and Identification/Entomology, California Department of Food and
Agriculture, Sacramento, California 95814.

The *partita* group of the subgenus *Ageniella* was treated by Townes (1957). He included five species, two known from both sexes, two from the female only and one from the male only. The present paper redefines the group, excludes one previously described species and provides descriptions of two new species based on both sexes.

As far as is known, the *Ageniella partita* group is strictly Nearctic in distribution and includes species of small size and fugitive habits which are not well represented in most collections. Features which will separate this group from others in the subgenus are: Anterior wing of both sexes hyaline, neither patterned nor infuscate except often with a poorly defined dark band at apex; marginal cell more than its own length from wing apex; third submarginal cell short, at least 0.65 as high as long; second recurrent vein meets third submarginal cell usually considerably beyond middle and joins subdiscoidal vein half or less distance from origin of subdiscoidal to wing margin; brush on inner side of posterior tibia somewhat narrowed but usually not interrupted toward apex; females always with mesosoma or metasoma red or orange; males of some species with tibial spurs of anterior and middle legs white.

An explanation of the abbreviations used in the following descriptions is given by Evans (1966:4). L and W refer to length and width, respectively and A3 refers to the third antennal segment.

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***Ageniella (Ageniella) joannae* Wasbauer, NEW SPECIES
(Figs. 1, 2)**

Holotype female. — 5.4 mm. Anterior wing 4.10 mm. Integumental color of head black, of lower face, clypeus, antennae, legs, mesosoma and metasoma medium brown, the following areas suffused with black: mesonotum laterally and posteriorly, scutellum laterally, postscutellum medially, base of petiole and tarsi. Appressed pubescence long, dense, pale golden, somewhat coarser at apices of T 2-4, forming ill-defined apical bands, silvery on mesepisternum, propodeum and posterior coxae dorsally. Erect hairs short, pale golden, scattered over entire body, longer on vertex, clypeus, mandibles, prosternum laterally, pygidium and metasomal sterna. Head rounded, slightly broader than long, TFD/FD 1.01; MID/FD

0.55; ocelli in a compact, somewhat acute triangle, laterals much nearer to compound eyes than to each other, POL/OOL 0.64. Length of clypeus $0.40 \times$ width, frontal surface gently convex, apical margin slightly convex with ill defined prominence medially, apical hairless portion shining, wider at middle, set off from remainder of clypeus by a distinct narrow groove. Antennae of moderate length, WA3/LA3 0.28, LA3/UID 0.73. Length of anterior wing marginal cell $0.86 \times$ distance from its apex to apex of wing. Transverse median vein meeting media at origin of basal. Second recurrent vein nearly straight posteriorly, but strongly curved at anterior fourth, meeting third submarginal cell $0.75 \times$ distance from base to apex of cell.

Allotype male.—5.07 mm. Anterior wing 3.13 mm. Integumental color of head black, that of lower face, clypeus, mandibles, mesosoma and anterior segments of metasoma, light orange-brown, the following areas suffused with black: antennae, palpi, mesonotum and scutellum laterally, postscutellum medially, mesepisternum ventrally, tarsi, base of petiole and apical metasomal segments. Tibial spurs of anterior legs orange-brown, suffused with black at apices, spurs of middle and posterior legs black. Appressed pubescence pale, coarse, silvery on lower face, occiput, prosternum, mesepisternum, posterior face of propodeum, and posterior coxae dorsally. Head rounded, no broader than long, TFD/FD 1.00. Compound eyes slightly divergent dorsally, UID/LID 1.15. Ocelli in a slightly acute triangle, nearer each other than to compound eyes, POL/OOL 0.67. Antennae moderately long, WA3/LA3 0.42, LA3/UID 0.60, width of penultimate segment $0.41 \times$ length. Subgenital plate gradually tapering to a narrowly rounded apex, strongly convex in cross section but without a basal, triangular, flat-topped area. Genitalia (Fig. 1) with ventral lobe of digitus nearly horizontal, exceeding dorsal lobe; dorsal lobe nearly vertical, blade-like. Aedeagus parallel-sided, not expanded at apex. Gonostylus in lateral view (Fig. 2) with dorsal margin strongly sinuate.

Types.—Holotype ♀ (UCD): CALIFORNIA: *San Diego Co.*: Warner Springs, Aqua Caliente Creek, elevation 3100', VIII-23/25, 1980 (J. Slansky). Allotype ♂ (UCD) and paratypes (9 ♀, 11 ♂, CAS and author's collection) with same data as holotype except collectors P. Adams, M. Wasbauer. Some specimens were taken in a Malaise Trap.

The collector informs me that the holotype was taken as it walked among foraging ant workers and was difficult to distinguish from the ants because of similar size, coloration and pilosity. The ant was subsequently determined as *Formica pilicornis* Emery.

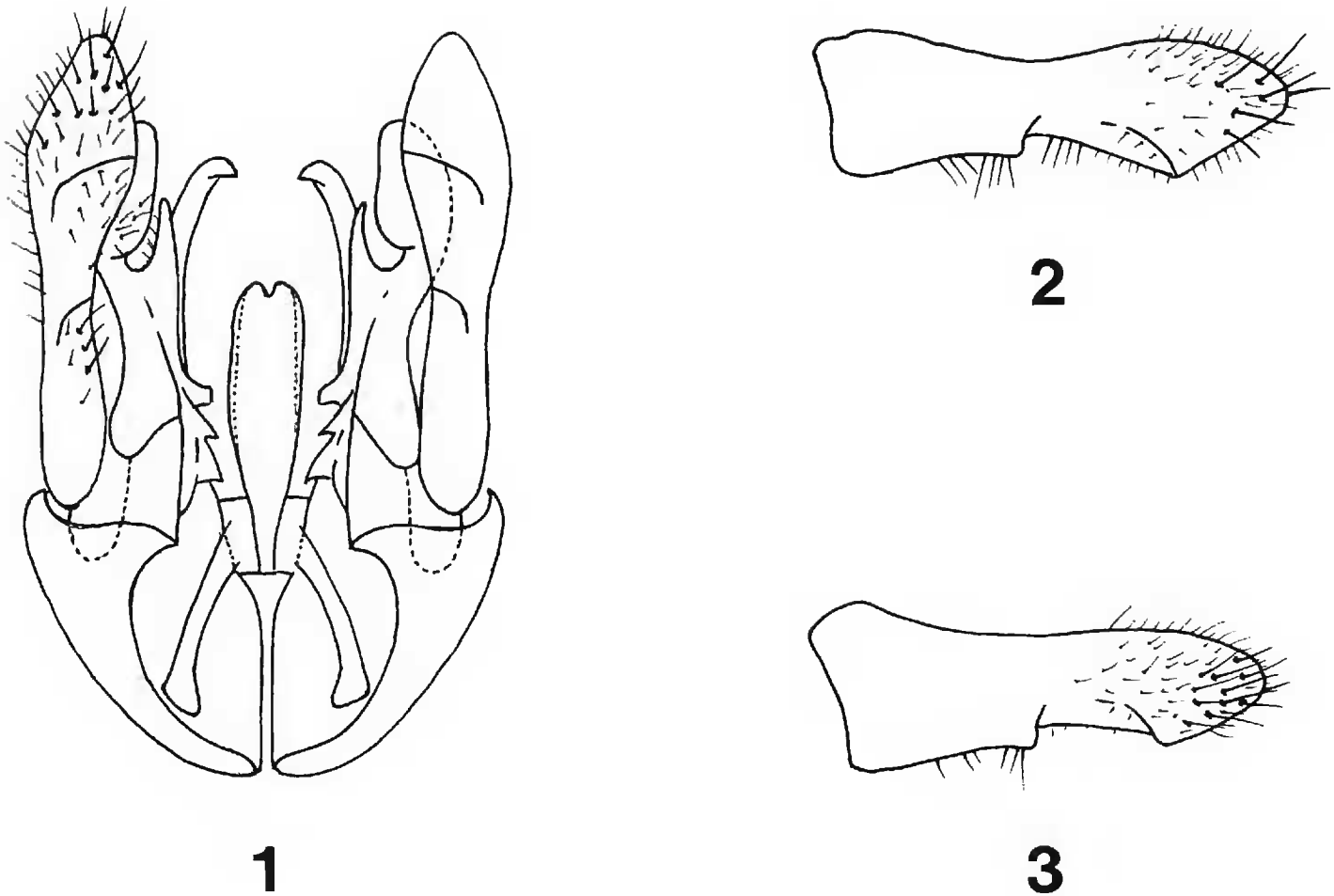
This species is affectionately dedicated to Joanne Slansky.

A discussion of the relationships of *Ageniella joannae* is given together with that for *A. boharti*.

Ageniella (Ageniella) boharti Wasbauer, NEW SPECIES

(Fig. 3)

Holotype female.—4.4 mm. Anterior wing 3.70 mm. Integumental color of head and mesosoma, antennae, palpi and legs light orange-brown, posterior tarsi a little darker; metasoma dark brown, nearly black. Appressed pubescence very sparse, pale golden becoming silvery on mesepisternum anteriorly and posterior coxae dorsally. Erect hairs pale golden, very short and scattered except for a few longer hairs on vertex, clypeus, mandibles, pygidium and metasomal sterna. Head slightly



Figs. 1, 2. *Ageniella joannae*. 1, Male genitalia, ventral view. Vestiture omitted on right side. 2, Left gonostylus, external view. Fig. 3. *Ageniella boharti*. Left gonostylus, external view.

longer than broad, TFD/FD 0.97, MID/FD 0.63. Ocellar bases darkened, ocelli in a compact triangle, the laterals much nearer each other than to compound eyes, POL/OOL 0.71. Length of clypeus $0.37 \times$ width, frontal surface gently convex, apical margin nearly straight, hairless portion of apex shining, set off from remainder of clypeus by an indistinct groove. Antennae relatively short, WA3/LA3 0.30, LA3/UID 0.56. Length of anterior wing marginal cell $0.60 \times$ distance from its apex to apex of wing. Transverse median vein meeting media at origin of basal. Second recurrent vein strongly curved, meeting third submarginal cell $0.65 \times$ distance from base to apex of cell.

Allotype male.—2.21 mm. Anterior wing 1.59 mm. Integumental color of head and metasoma black; mesosoma, clypeus, lower face, scape and pedicel pale orange-brown; antennal flagellum and tarsi dark brown, the following areas of mesosoma suffused with black: mesonotum, scutellum, postscutellum and mesepisternum anteriorly. Tibial spurs of anterior and middle legs pale yellowish white, of posterior legs blackish. Appressed pubescence sparse, pale over entire body, coarser, silvery on lower face, clypeus, occiput, and most of mesosoma. Head rounded, slightly broader than long, TFD/FD 1.05. Compound eyes divergent dorsally, UID/LID 1.28. Ocelli in a compact, slightly acute triangle, nearer each other than to compound eyes, POL/OOL 0.70; antennae moderately long, WA3/LA3 0.40, LA3/UID 0.45, penultimate segment 0.55 as wide as long. Subgenital plate narrow, tapering gradually from base to a narrowly rounded apex; strongly convex but without a basal, triangular, flat-topped area. Genitalia as in *Ageniella joannae* but gonostylus in lateral view (Fig. 3) with dorsal margin not as strongly sinuate.

Types.—Holotype ♀ (UCD): CALIFORNIA: *San Diego Co.*: Borrego Valley, IV-11-1969, R. M. Bohart collector. Allotype ♂ (UCD) and paratypes (5 ♀, 2 ♂, CAS and author's collection): CALIFORNIA: *San Diego Co.*: Borrego State Park, Clark Dry Lake, III-31 and IV-1, 1977, M. Wasbauer, J. Slansky, collectors.

At Clark Dry Lake, both sexes frequented the margins of the lake where there were numerous cracks in the dried mud surface. Females were found investigating the cracks and possibly were using them for nesting.

This species is named for a long time friend and associate, Prof. R. M. Bohart, in honor of his outstanding contributions to our knowledge of the biology and taxonomy of aculeate wasps.

Ageniella pallida Banks, known from females only, was placed by Townes (1957) in the *A. partita* group. It is a species with an orange mesosoma and in this regard is similar to *Ageniella joannae* and *A. boharti*. I have examined the holotype of *pallida* in the MCZ and other material in the USNM. The following features will separate it from *A. joannae* and *A. boharti* and exclude it from the *partita* group as here defined: Anterior wing marginal cell long, 0.85–0.89 × its length from wing apex; third submarginal cell long, height 0.54–0.55 length; second recurrent vein meets third submarginal cell before middle and intersects subdiscoidal vein more than half distance from origin of subdiscoidal to wing margin.

With *A. pallida* excluded, the only members of the *partita* group with orange or brown mesosoma are *Ageniella joannae* and *A. boharti*. These species differ as follows: for females, the body of *Ageniella joannae* is uniformly light brown and exhibits a rather conspicuous pale golden appressed pubescence. The body of *A. boharti* is noticeably bicolored with the mesosoma light brown and the metasoma nearly black, with the appressed pubescence very dilute and much less conspicuous. The ratio MID/TFD averages 0.61 for *A. joannae* and 0.58 for *A. boharti*. LA3/UID averages 0.71 for *A. joannae* and 0.59 for *A. boharti*. There is no overlap in the ranges of these two ratios for the type series of either species. For males, *A. joannae* and *A. boharti* are similarly colored but the first two metasomal segments of *A. joannae* are concolorous with the mesosoma and the middle tibial spurs are dark. In *A. boharti*, the metasoma is entirely dark and the middle tibial spurs are whitish. The genitalia are very similar but the dorsal margin of the gonostylus is more strongly sinuate in *A. joannae* (Fig. 2) than in *A. boharti* (Fig. 3).

LITERATURE CITED

- Evans, H. E. 1966. A revision of the Mexican and Central American spider wasps of the subfamily Pompilinae (Hymenoptera: Pompilidae). Mem. Amer. Ent. Soc. 20:1–442.
- Townes, H. 1957. Nearctic wasps of the subfamilies Pepsinae and Ceropalinae. U.S. Natl. Mus. Bull. 209:1–286.